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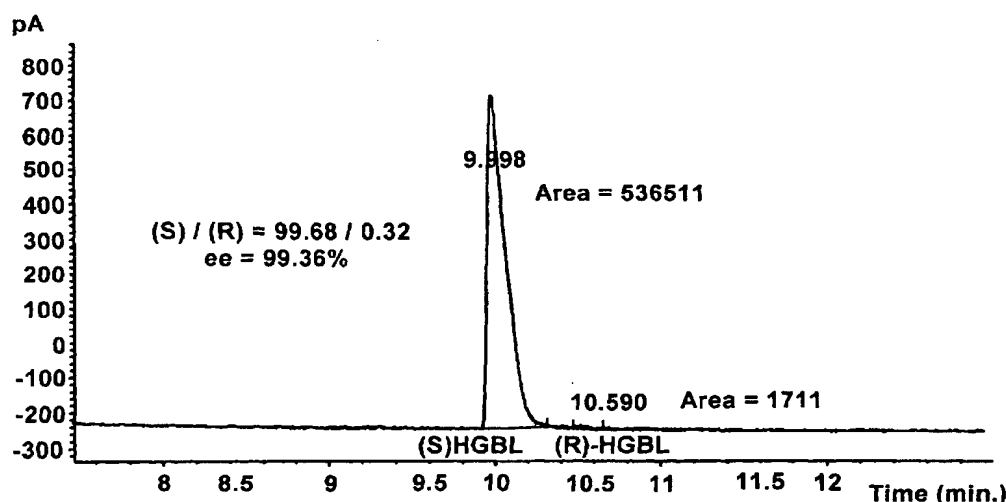
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(54) Title: CONTINUOUS PROCESS FOR THE PRODUCTION OF OPTICALLY PURE (S)- $\beta$  HYDROXY- $\gamma$ -BUTYROLACTONE



(57) Abstract: Disclosed is a continuous process for the production of optically pure (S)- $\beta$ -hydroxy- $\gamma$ -butyrolactone having constantly maintained optical activity, consisting of hydrogenating 2-50 wt% of a substituted carboxylic acid derivative in a solvent using a fixed bed reactor filled with a precious metal catalyst-impregnated inorganic oxide carrier at 50-500 °C under pressure of 15-5,500 psig at weight-space-velocity of 0.1-10 h<sup>-1</sup>, in which a molar ratio of hydrogen to carboxylic acid derivative ranges from 2 to 10. The desired material can be produced in higher optical purity and at higher yield by the current process which is relatively simpler and environmentally safer than conventional processes. Additionally, increased production efficiency leads to production of the desired material on a large scale.



European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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